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TITLE : POLISHING METHOD OF SEMICONDUCTOR WAFER

ABSTRACT : PURPOSE: To obtain a hydrophilic clean polished surface, on which a foreign matter does not adhere, by rinse-polishing a semiconductor wafer by a solution containing a diluted oxidizing agent immediately before the completion of mechanochemical polishing.

CONSTITUTION: Rinse polishing is executed by using a solution, in which an oxidizing agent is diluted, immediately before the completion of polishing. Consequently, since the oxidizing agent is decomposed owing to alkali species remaining on a polishing cloth and heat generation by polishing, an extremely active semiconductor-wafer surface generated through actual polishing is oxidized, thus forming an extremely thin oxide film onto the semiconductor-wafer surface. As a result, polished surface itself changes from a hydrophobic properties to hydrophilic properties, and the adhesion of a foreign matter such as abrasives remaining after polishing is weakened even when the foreign matter adheres on the semiconductor-wafer surface, thus easily removing the foreign matter through washing such as washing by pure water. Accordingly, the speed of polishing is not decreased, and a clean semiconductor wafer, which has no stain and cloudiness and on the surface of which a protrusion is not formed, can be manufactured efficiently.

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